

Abstract

An injection apparatus in a cold chamber die casting molding machine, wherein a melting device (10) of the injection apparatus comprises a billet supplying device (40) for replenishing a light metal material in the form of a billet (2), a melting cylinder (11) for melting the billet from its front end and forming a molten metal (3) for several shots, an inserting device (50) for inserting a billet into the melting cylinder, and a plunger injection device (20), and wherein the amount of a molten metal for one shot is measured via an opening and shutting device (70) of a molten metal feeding member (15) and is fed from the melting device to the plunger injection device. In particular, the sealing of the molten metal in the melting cylinder is achieved by the contact of the side surface (2a) of a portion of the billet having an enlarged diameter with the hole (111a) of the cylinder, or by the contact of a circular solidified material (201) formed in a circular groove (212a) in a cooling sleeve (212) with the billet. The injection apparatus can be used for feeding and melting a light metal material such as a magnesium alloy material with better efficiency and measuring the amount of a molten metal with higher accuracy.